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09/584,701	06/01/2000	Irene Lin	SLA 001	5051

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EXAMINER

ROCHE, LEANNA M

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 12/19/2002

17

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/584,701

Applicant(s)

LIN, IRENE

Examiner

Leanna Roche

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 19-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. The amendment filed September 27, 2002 has been entered and carefully considered. Claims 1 and 10 have been amended. Claims 19-43 remain withdrawn from further consideration.
2. With regard to newly added Claim 19, the numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 19 has been renumbered 44.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: in line 11 of Claim 1, delete "decreasesits" and insert --decreases its--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaikema et al. (USPN 4689936).

Gaikema is directed to a packaging product comprising a polypropylene cover having at least one vent hole approximately 0.4 mm in diameter, the vent hole being closed by a hot melt of ethylene vinyl acetate (Example 1). Gaikema's polypropylene cover having at least one vent hole reads on Applicant's polymer composite layer having two sides with a plurality of tiny gaps which are pseudo-closed for air permeation initially. The vent holes of Gaikema are hermetically sealed by the ethylene vinyl acetate hot melt. Therefore, the ethylene vinyl acetate hot melt of Gaikema reads on Applicant's nonstick sealing layer attached to one side of the polymer composite layer for filling the gaps to prevent air permeation. Gaikema states

...During the heat treatment, the hot melt becomes liquid, so that gases can escape from the container closed by the cover through the liquid hot melt...When the temperature drops after the heat treatment and no further gas is escaping from the package, the walls of the aperture in the liquid hot melt flow together, thereby hermetically sealing the opening. The hot melt then solidifies totally when the temperature drops further...

(Column 4, lines 1-16). This reads on Applicant's claimed tiny gap size being varied according to a pressure difference between the two sides of the polymer composite, and Applicant's sealing layer that gradually decreases its sealing ability when heated by hot air but gradually reseals the gaps again when cooled.

The polypropylene cover of Gaikema reads on Applicant's polymer layer comprised of polypropylene.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3 and 10-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gaikema et al. (USPN 4689936).

With regard to Claims 2 and 3, the 102(b) teachings of Gaikema are set forth above in paragraph 5. However, Gaikema does not specifically disclose the method of forming the vent holes in their polypropylene cover.

It is the examiner's position that the polypropylene cover of Gaikema is identical to or only slightly different than the claimed composite film prepared by the method of the claim(s), because both may be comprised of a polypropylene cover (Applicant's polymer composite layer having two sides) having at least one vent hole approximately 0.4 mm in diameter (Applicant's plurality of tiny gaps), the vent hole being closed by a hot melt of ethylene vinyl acetate (Applicant's nonstick sealing layer filling the gaps to prevent air permeation, and the sealing ability of the sealing layer gradually decreasing when heated by hot air but gradually resealing the gaps again when cooled. Even

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though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. See *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Gaikema either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Gaikema.

With regard to Claims 10-13, Gaikema teaches a plastic (SURLYN) coated aluminum foil cover having at least one vent hole. This reads on Applicants composite film comprising a first layer and a second layer having a plurality of tiny gaps. The vent holes of Gaikema are hermetically sealed by the ethylene vinyl acetate hot melt. This reads on Applicant's sealing layer filling the tiny gaps. The plastic (SURLYN) layer of Gaikema reads on Applicant's first layer comprising an ethylene/methacrylic acid ionomer. The aluminum foil of Gaikema reads on Applicant's second layer having a higher melting point than that of the first layer.

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8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (USPN 4689936).

The teachings of Gaikema are set forth above in paragraphs 5. Gaikema, however, does not disclose applying another nonstick sealing layer to the other side of the polymer layer. However, it would have been obvious to the skilled artisan at the time of this invention to provide an additional sealing layer on the cover of Gaikema, motivated by the desire to increase the stiffness and strength of the food packaging material of Gaikema.

9. Claims 5, 6, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (USPN 4689936) as applied to claims 1 and 10 above, and further in view of Mueller et al. (USPN 4404241).

With regard to Claims 5, 6, 16 and 17, Gaikema teaches using an ethylene vinyl acetate hot melt material as their sealing layer material, but does not specifically teach a sealing layer comprised of fatty acids, starch, amyloid materials, lipids, oleaginous materials, wetting agents, or waxes. Mueller teaches a microwave package with venting holes which are sealed with an extrudable hot melt material which conveys moisture barrier properties and is adapted to soften and permit venting of vapor generated in the package. Mueller states, "extrudable hot melts are uniquely suitable for this purpose". Mueller specifically uses an ethylene-vinyl acetate wax hot melt. Therefore, it would have been obvious to the skilled artisan at the time this invention was made to use ethylene-vinyl acetate wax hot melt of Mueller in place of the ethylene

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vinyl acetate hot melt of Gaikema, since the equivalence of ethylene-vinyl acetate wax hot melt and ethylene vinyl acetate hot melt for their use as sealing materials which soften and permit venting of vapor is well known in the art, and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

With regard to Claim 14, Gaikema teaches a polyolefin coated aluminum foil, but does not teach a second layer composed of the materials claimed by Applicant. Mueller teaches a multi-layer sheet comprised of a paper like layer bonded to a polyethylene layer. This reads on a first layer comprised of polyethylene and a second layer comprised of synthetic paper. Mueller states that these materials are useful because they maintain dimensional stability when exposed to temperatures reached in cooking or heating operations and they do not interfere with cooking or heating operations (Column 4, lines 55-65). Therefore, it would have been obvious to the skilled artisan at the time this invention was made to use a synthetic paper as the second layer rather than an aluminum foil layer, motivated by the desire to produce a material that is known to maintain dimensional stability when exposed to heating operations and which does not interfere with heating operations.

10. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (USPN 4689936) as applied to claims 1 and 10 above, and further in view of Lesser (USPN 5012061).

Gaikema teaches a packaging material for foods undergoing heat treatment having a cover with at least one vent hole, but does not disclose whether plural holes



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are evenly distributed or distributed within selected areas of the polymer layer. Lesser teaches a microwave safe lid having a plurality of small openings preferably patterned so that the escape of steam and vapors occurs from all areas of the vessel so that uniformity in cooking is enhanced and the likelihood of hot spots decreases. Therefore, it would have been obvious to the skilled artisan at the time this invention was made to evenly distribute the vent holes or distribute the vent holes within selected areas of the polymer layer, motivated by the desire to decrease the likelihood of hot spots and to allow for uniformity in cooking.

11. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (USPN 4689936) as applied to claims 1 and 10 above, and further in view of Inoue (USPN 4769175).

Gaikema does not disclose an oxygen scavenger in their multi-layer sealed sheet material. However, Inoue shows that it is known in the art that prevention of oxygen exposure preserves food from becoming rotten. Inoue is directed to a packaging material for food comprised of a fibrous material, such as pulp, polyethylene or polypropylene combined with iron powder and water to form a sheet-like oxygen scavenging material. The oxygen scavenging material of Inoue may be coated with an additional layer such as an acrylic, polyethylene, polyester or polypropylene which may be porous. It would have been to a person of ordinary skill in the art at the time this invention was made to combine the teachings of Gaikema and Inoue, motivated by the desire to produce a food packaging material which prevents permeation of oxygen to

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increase the preservation of the food contained in the package and prevent the food from becoming rotten.

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oyama (USPN 6068898) teaches a film sheet having a pressure valve portion with one or more holes passing through the film and a thin covering portion which is constructed to rupture when a predetermined maximum sustainable pressure differential is applied across the film. Challis et al. (USPN 5672406) teaches a packaging material having slits formed therein, so that the slit varies in size with temperature, which is particularly applicable to Applicant's Claim 10.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leanna Roche whose telephone number is 703-308-6549. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm (with alternate Mondays off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



lmr

December 11, 2002



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